

Claims

1. A mounting structure for a fuel pump of a vehicle engine in which:
an opening is formed in a side surface or a bottom surface of a fuel tank;

a fuel pump assembly including a cylindrical pump body and a filter coupled with a suction side of the pump body is accommodated in an inner space of the fuel tank relative to the opening;

a flange section of a housing that encloses the cylindrical pump body abuts on a surrounding area of the opening outside of the fuel pump;

a mounting plate is covered from the outside of the flange section, and the fuel pump assembly is fixed to the opening through the mounting plate and the flange section;

the mounting structure for a fuel pump of a vehicle engine characterized in that:

an axis of the cylindrical pump body extends generally parallel to a mounting surface of the mounting plate; and

the cylindrical pump body and the filter are arranged to be overlapped with each other.

2. The mounting structure for a fuel pump of a vehicle engine according to Claim 1 characterized in that:

the fuel tank is a saddle type fuel tank that straddles a body frame; and

the opening is formed in a side wall surface or a bottom surface located inside of the saddle type fuel tank.

3. The mounting structure for a fuel pump of a vehicle engine according to Claim 1 or 2 characterized in that:

a fuel passage comprises the filter, the cylindrical pump body and a member through which fuel flows from the filter to the cylindrical pump body, and the fuel passage is folded back.

4. The mounting structure for a fuel pump of a vehicle engine according to Claim 2 or 3 characterized in that:

the opening is formed in the side wall surface located inside of the saddle type fuel tank; and

the filter is disposed below the cylindrical pump body.

5. The mounting structure for a fuel pump of a vehicle engine according to any one of Claim 1 through 4 characterized in that:

the opening has an elliptic shape, and a longitudinal axis of the opening extends generally horizontally and generally parallel to the axis of the cylindrical pump body.

6. The mounting structure for a fuel pump of a vehicle engine according to any one of Claim 1 through 5 characterized in that:

the cylindrical pump body and the filter are spaced apart from each other in a direction normal to the axis of the cylindrical body.

7. A mounting structure for a fuel pump of a vehicle engine comprising:

a fuel pump assembly accommodated in an inner space of a fuel tank and mounted onto the fuel tank by a mounting plate; and

characterized in that the fuel pump assembly includes:

a cylindrical pump body, and

a filter attached to the cylindrical pump body;

the cylindrical pump body is disposed such that an axis of the cylindrical pump body extends along a mounting surface of the fuel tank to which the mounting plate is affixed; and

the filter is disposed such that at least a portion of the filter is located out of the cylindrical pump body in a radial direction of the pump body.

8. The mounting structure for a fuel pump of a vehicle engine according to Claim 7 characterized in that:

an opening is formed in a side surface or a bottom surface of a fuel tank;

the mounting structure for a fuel pump further comprises a housing attached to the opening;

the housing encloses the cylindrical pump body inside thereof, and has a flange section abutting on a surrounding area of the opening outside; and

the mounting plate extends over the flange section to fix the flange portion to the fuel pump.

9. The mounting structure for a fuel pump of a vehicle engine according to Claim 7 or 8 further comprising:

a fuel pipe having an end with which the cylindrical pump body is

coupled, a trunk portion of the fuel pipe bending toward the filter, and another end with which the filter is coupled; and

a fuel flow direction in the cylindrical pump body and a fuel flow direction in the filter are reversed with each other.

10. A vehicle comprising the mounting structure for a fuel pump according to any one of Claims 1 through 9.